UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,372	09/05/2003	Masanao Sakai	053969-0157	8586

22428   7590   03/03/2009
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER
PAN, JOSEPH T

ART UNIT	PAPER NUMBER
2435	

MAIL DATE	DELIVERY MODE
03/03/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/655,372	SAKAI, MASANAO
	Examiner	Art Unit	
	JOSEPH PAN	2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 January 2009</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,3-8,10-15,17-21,23-30 and 32</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1,3-8,10-15,17-21,23-30 and 32</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on <u>05 September 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____ .
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/21/07</u>.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 6, 2009 has been entered.

2.   Applicant's response filed on October 28, 2008 has been carefully considered. Claims 1, 3-8, 10-15, 17-21, and 23-30, 32 are pending.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 3-8, 10-15, 17-21 and 23-30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arrow et al. (U.S. Patent No. 6,175,917 B1), hereinafter "Arrow", in

view of Yamaguchi et al. (U.S. Pub. No. 2001/0042201 A1), hereinafter "Yamaguchi", and further in view of Rothermel et al. (U.S. Patent No. 6,678,827 B1), hereinafter "Rothermel".

Referring to claim 1:

  i. Arrow teaches:

  A network comprising:

  IP processing apparatuses, which use an IP (Internet Protocol) for encrypting and authenticating communications via the Internet between two different centers (see figure 1, elements 115, 125, 135, 145, 155; and column 6, line 61, through column 7, line 7, of Arrow); and

  an IP setting apparatus, which manages IP settings of the IP processing apparatuses (see figure 1, element 160 'VPN management station'; figure 13, elements 1314 "define access control rules", 1316 "define address translation rules"; and column 15, line 69, through column 16, line 15, of Arrow);

  wherein in response to receiving a request from a first IP processing apparatus to communicate with a second IP processing apparatus, the second IP setting apparatus transmits a response (see column 7, lines 26-45, of Arrow).

  Arrow further discloses that the IP setting apparatus transmits a common encryption key to the first and second IP process apparatuses to be used to encrypt and authenticate IP communications between the first and second process apparatuses (see column 11, lines 27-34, of Arrow).

  Arrow discloses IP protocol and IP packets (see column 6, lines 51-54 of Arrow). However, Arrow does not specifically mention the IPsec (Internet Protocol security protocol). Neither does Arrow Specifically mention that the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

  ii. Yamaguchi teaches a security communication method wherein Yamaguchi discloses using IPsec to implement VPN (Virtual Private Network) (see page 1, paragraph [0008] of Yamaguchi).

  On the other hand, Rothermel teaches managing multiple network security devices from a manager device, wherein Rothermel discloses that the VPN units makes a

request to the VPN management unit in order to communicate with other VPN units (see figure 1, elements 120, 160 'supervisor/host device', element 110 'security policy manager device'; and column 5, line 52-60 'In some embodiments, the manager device and supervisor devices are external devices. <u>Security for the communications between the manager device, supervisor devices [i.e., VPN management units], and NSDs [i.e., VPN units] can be provided in a variety of ways</u>. For example, <u>any of the information transmitted</u> <u>between the NSDs [i.e., VPN units] and the supervisor devices</u> [i.e., VPN management units] and between the supervisor devices and the manager device can be protected from unauthorized access by encrypting the information (e.g., using Data Encryption Standard (DES) in Cipher Block Chaining (CBC) mode).', of Rothermel).

           iii.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yamaguchi into the method of Arrow to use IPsec.

              It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Rothermel into the method of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

          iv.   The ordinary skilled person would have been motivated to have applied the teaching of Yamaguchi into the system of Arrow to use IPsec, because Arrow teaches implementing VPN (Virtual Private Network) via IP (Internet Protocol), and Yamaguchi discloses using IPsec to implement VPN (see page 1, paragraph [0008] of Yamaguchi). Therefore, Yamaguchi's teaching would be a good match to Arrow's teaching.

              The ordinary skilled person would have been motivated to have applied the teaching of Rothermel into the system of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units, because Arrow teaches "If a packet is received from a remote client that is not currently
authenticated, the system attempts to authenticate the remote client before forwarding traffic from that client. If authentication is successful, <u>the system **dynamically** retrieves configuration information for the remote client</u> <u>from a database</u> [i.e., VPN management unit] and further traffic from that client will be processed according to the retrieved configuration information." (see

column 8, lines 11-20, of Arrow, emphasis added). Rothermel teaches that the VPN units make a request to the VPN management unit in order to communicate with other VPN units (see (ii) above). Therefore, Rothermel's teaching could enhance Arrow's system.

Referring to claims 3-4, 10-11, 16, 23-24, 29:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: a network. They further disclose transmitting messages between IPsec setting server apparatus and IPsec processing apparatus (see column 9, lines 19-22 of Arrow).

Referring to claims 5, 12, 25:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: a network. They further disclose generating SA (Security Association) parameters (see figure 13, element 1310 'define VPN parameters'; and column 15, lines 52-54 of Arrow).

Referring to claims 6, 13, 26:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: a network. They further disclose send a message including the policies and the SA parameters (see figure 13, elements 1310, 1314, 1316; and column 9, lines 19-22 of Arrow).

Referring to claims 7, 14, 19, 27:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: a network. They further disclose the keys for encryption and authentication (see column 11, lines 32-34 of Arrow).

Referring to claim 8:

i.   Arrow teaches:

An IP setting apparatus managing IP setting of IP processing apparatuses, which use an IP (Internet Protocol) for securing communication via the Internet between two different centers (see figure 1, element 160; figure 13, elements 1314 "define access control rules", 1316 "define address translation rules"; and column 15, line 69, through column 16, line 15, of Arrow),

wherein said IP setting apparatus manages IP policies applied among IP processing apparatus(see figure 1, element 160; figure 13, elements 1314 "define access control rules", 1316 "define address translation rules"; and column 15, line 69, through column 16, line 15 of Arrow), and

wherein said IP setting apparatus includes means for specifying specifies the IP policies of said IP to be applied between a first IP processing apparatus and the second IP processing apparatus (see figure 11, element 1102 'receive request to configure VPN unit'; figure 13, elements 1310 'define VPN parameters', 1314 'define access control rules', 1316 'define address translation rules'; and column 15, line 52-column 16, line 15, of Arrow, emphasis added).

Arrow discloses IP protocol and IP packets (see column 6, lines 51-54 of Arrow). However, Arrow does not specifically mention the IPsec (Internet Protocol security protocol). Neither does Arrow Specifically mention that the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

ii.   Yamaguchi teaches a security communication method wherein Yamaguchi discloses using IPsec to implement VPN (Virtual Private Network) (see page 1, paragraph [0008] of Yamaguchi).

On the other hand, Rothermel teaches managing multiple network security devices from a manager device, wherein Rothermel discloses that the VPN units makes a request to the VPN management unit in order to communicate with other VPN units (see figure 1, elements 120, 160 'supervisor/host device', element 110 'security policy manager device'; and column 5, line 52-60 'In some embodiments, the manager device and supervisor devices are external devices. Security for the communications between the manager device, supervisor devices [i.e., VPN management units], and NSDs [i.e., VPN units] can be provided in a variety of ways. For example, any of the information transmitted between the NSDs and the supervisor devices and between the supervisor devices and the manager device can be protected from unauthorized access by encrypting the information (e.g., using Data Encryption Standard (DES) in Cipher Block Chaining (CBC) mode).', of Rothermel).

iii.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yamaguchi into the method of Arrow to use IPsec.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Rothermel into the method of Arrow to let

the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

      iv.   The ordinary skilled person would have been motivated to have applied the teaching of Yamaguchi into the system of Arrow to use IPsec, because Arrow teaches implementing VPN (Virtual Private Network) via IP (Internet Protocol), and Yamaguchi discloses using IPsec to implement VPN (see page 1, paragraph [0008] of Yamaguchi). Therefore, Yamaguchi's teaching would be a good match to Arrow's teaching.

      The ordinary skilled person would have been motivated to have applied the teaching of Rothermel into the system of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units, because Arrow teaches "If a packet is received from a remote client that is not currently

authenticated, the system attempts to authenticate the remote client before forwarding traffic from that client. If authentication is successful, <u>the system **dynamically** retrieves configuration information for the remote client</u> <u>from a database</u> [i.e., VPN management unit] and further traffic from that client will be processed according to the retrieved configuration information." (see column 8, lines 11-20, of Arrow, emphasis added). Rothermel teaches that the VPN units make a request to the VPN management unit in order to communicate with other VPN units (see ii above). Therefore, Rothermel's teaching could enhance Arrow's system.

    <u>Referring to claim 15</u>:

      i.   Arrow teaches:

      An IP processing apparatus using an IP (Internet Protocol) on the Internet,

      wherein said IP processing apparatus receives from an IP setting apparatus managing communication a packet containing the IP to be applied to communication with another IP processing apparatus, determines whether or not to request from the IP setting apparatus a setting for IP communication (see column 4, lines 38-40; column 11, lines 27-30 of Arrow), and

      wherein the IP processing apparatus transmits a request to the IP setting apparatus in order to receive from the IP setting apparatus a setting for IP communication (see figure 11, element 1102 '<u>receive request</u> to configure VPN unit'; figure 13, elements 1310 'define

VPN parameters', 1314 'define access control <u>rules</u>', 1316 'define address translation <u>rules</u>'; and column 15, line 52-column 16, line 15, of Arrow, emphasis added).

        Arrow discloses IP protocol and IP packets (see column 6, lines 51-54 of Arrow). However, Arrow does not specifically mention the IPsec (Internet Protocol security protocol). Neither does Arrow Specifically mention that the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

        ii.   Yamaguchi teaches a security communication method wherein Yamaguchi discloses using IPsec to implement VPN (Virtual Private Network) (see page 1, paragraph [0008] of Yamaguchi).

        On the other hand, Rothermel teaches managing multiple network security devices from a manager device, wherein Rothermel discloses that the VPN units makes a request to the VPN management unit in order to communicate with other VPN units (see figure 1, elements 120, 160 'supervisor/host device', element 110 'security policy manager device'; and column 5, line 52-60 'In some embodiments, the manager device and supervisor devices are external devices. <u>Security for the communications between the manager device, supervisor devices [i.e., VPN management units], and NSDs [i.e., VPN units] can be provided in a variety of ways</u>. For example, any of the information transmitted <u>between the NSDs and the supervisor devices</u> and between the supervisor devices and the manager device can be protected from unauthorized access by encrypting the information (e.g., using Data Encryption Standard (DES) in Cipher Block Chaining (CBC) mode).', of Rothermel).

        iii.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yamaguchi into the method of Arrow to use IPsec.

        It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Rothermel into the method of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

        iv.   The ordinary skilled person would have been motivated to have applied the teaching of Yamaguchi into the system of Arrow to use IPsec, because Arrow teaches implementing VPN (Virtual Private Network) via IP (Internet Protocol), and Yamaguchi discloses

using IPsec to implement VPN (see page 1, paragraph [0008] of Yamaguchi). Therefore, Yamaguchi's teaching would be a good match to Arrow's teaching.

The ordinary skilled person would have been motivated to have applied the teaching of Rothermel into the system of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units, because Arrow teaches "If a packet is received from a remote client that is not currently authenticated, the system attempts to authenticate the remote client before forwarding traffic from that client. If authentication is successful, the system **dynamically** retrieves configuration information for the remote client from a database [i.e., VPN management unit] and further traffic from that client will be processed according to the retrieved configuration information." (see column 8, lines 11-20, of Arrow, emphasis added). Rothermel teaches that the VPN units make a request to the VPN management unit in order to communicate with other VPN units (see ii above). Therefore, Rothermel's teaching could enhance Arrow's system.

Referring to claims 18, 30:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: an IPsec processing apparatus. They further disclose the SPD, SAD (see e.g. figure 10, elements 1010, 1005 of Yamaguchi).

Referring to claims 20, 32:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: an IPsec processing apparatus. They further disclose acquiring new setting information (see column 10, lines 41-51 of Arrow).

Referring to claim 21:

i.   Arrow teaches:

An IPsec setting method comprising:

receiving from IP processing apparatus a request (see column 14, lines 33-44, of Arrow),

retrieving IP policy rules from memory and generating IP settings parameters based on the content of the request from the IP processing apparatus and the retrieved policy rules (see column 14, lines 33-44, of Arrow); and

transmitting the generated IP settings to the IP processing apparatus (see column 14, lines 33-44, of Arrow).

Arrow discloses IP protocol and IP packets (see column 6, lines 51-54 of Arrow). However, Arrow does not specifically mention the IPsec (Internet Protocol security protocol). Neither does Arrow Specifically mention that the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

ii.   Yamaguchi teaches a security communication method wherein Yamaguchi discloses using IPsec to implement VPN (Virtual Private Network) (see page 1, paragraph [0008] of Yamaguchi).

On the other hand, Rothermel teaches managing multiple network security devices from a manager device, wherein Rothermel discloses that the VPN units makes a request to the VPN management unit in order to communicate with other VPN units (see figure 1, elements 120, 160 'supervisor/host device', element 110 'security policy manager device'; and column 5, line 52-60 'In some embodiments, the manager device and supervisor devices are external devices. Security for the communications between the manager device, supervisor devices [i.e., VPN management units], and NSDs [i.e., VPN units] can be provided in a variety of ways. For example, any of the information transmitted between the NSDs and the supervisor devices and between the supervisor devices and the manager device can be protected from unauthorized access by encrypting the information (e.g., using Data Encryption Standard (DES) in Cipher Block Chaining (CBC) mode).', of Rothermel).

iii.   It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Yamaguchi into the method of Arrow to use IPsec.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Rothermel into the method of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units.

iv.   The ordinary skilled person would have been motivated to have applied the teaching of Yamaguchi into the system of Arrow to use IPsec, because Arrow teaches implementing VPN (Virtual Private Network) via IP (Internet Protocol), and Yamaguchi discloses

using IPsec to implement VPN (see page 1, paragraph [0008] of Yamaguchi). Therefore, Yamaguchi's teaching would be a good match to Arrow's teaching.

The ordinary skilled person would have been motivated to have applied the teaching of Rothermel into the system of Arrow to let the VPN units make a request to the VPN management unit in order to communicate with other VPN units, because Arrow teaches "If a packet is received from a remote client that is not currently
authenticated, the system attempts to authenticate the remote client before forwarding traffic from that client. If authentication is successful, <u>the system **dynamically** retrieves configuration information for the remote client</u> <u>from a database</u> [i.e., VPN management unit] and further traffic from that client will be processed according to the retrieved configuration information." (see column 8, lines 11-20, of Arrow, emphasis added). Rothermel teaches that the VPN units make a request to the VPN management unit in order to communicate with other VPN units (see ii above). Therefore, Rothermel's teaching could enhance Arrow's system.

<u>Referring to claim 28</u>:

Arrow, Yamaguchi, and Rothermel teach the claimed subject matter: a network. They further disclose the inquiry means (see page 4, paragraph [0045], lines 1-5 of Yamaguchi).

Response to Arguments

5.   Applicant's arguments, filed on October 28, 2008, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rothermel.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

       If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

       Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan

February 25, 2009

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435